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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,088	12/30/2003	Mikko Jaakkola	KOLS.083PA	6864

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EXAMINER	
THIER, MICHAEL	

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2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/748,088	JAAKKOLA ET AL.	
	Examiner	Art Unit	
	MICHAEL T. THIER	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 May 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,5-9,13 and 15-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,5-9,13 and 15-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments regarding the new amendments to the claims have been fully considered but are moot in view of the new grounds of rejection.

2. Applicant's argument that Kubosawa does not teach or suggest checking the state of the user interface component automatically in response to detecting a need to initiate the handover algorithm, have been fully considered and are not persuasive.

Applicant argues that Kubosawa teaches that any handover is in response to the user inputting something via input keys 62, and that the checking is not automatic in response to detecting a need to initiate handover.

In response to applicant's argument, the examiner respectfully disagrees. It seems the applicant is misinterpreting the examiners rejection and interpretation of the Kubosawa reference. The examiner previously explained that Kubosawa teaches in par. 32, that the controller judges whether handover is needed or not, based on communication quality measured at the receivers, *and information designated by the user*. Further see figure 2, which shows in step S4 the communication quality is first measured and then in step S5-S7 the process detects whether there is a need to initiate handover or not based on the communication quality. Finally, automatically in response to the quality deteriorating, and thus a need for handover, the process moves to step S9 to then check the user interface component (i.e. input keys 62). Therefore, it is clear that the user interface component is checked automatically in response to detecting a need to initiate handover in the case when handover is not possible.

The examiner understands that based on figure 2 of Kubosawa, a determination is made as to whether the communication quality has deteriorated (i.e. S5). Based on this determination, the device will determine that there is a need to handover, and thus a need to initiate the handover algorithm, if the communication quality has deteriorated (i.e. figure 2 steps S5, S6, S7). Once it is determined that the quality is deteriorated, and thus a handover is needed, the device will check the user interface component for an input from the user (figure 2 steps S8 and S9). Therefore, the state of the user interface component is checked automatically in response to detecting a need to initiate the handover algorithm.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 3, 8, 9, 13, 19, 21-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubosawa (US 2002/0183062) in view of Halonen (WO 99/45733) in further view of Lee et al. (US 2003/0153312).

Regarding claims 1, 9, and 21. Kubosawa teaches a mobile terminal, method, and computer readable medium comprising: (abstract and figures 1-2)

a processor (figure 1 item 50) configured to check a state of a user interface component (figure 2 item S9, further par. 55 which explains that the input keys are

checked for an input of the user, thus the state of a user interface component is checked), wherein the interface component is adjustable in an inactive state or in an active state (see figure 2 items S8, S9, and S10, specifically where it judges the instruction of the user and if there is no input it does not handover, and if there is input at step S9, it executes the handover. The idea of judging the instruction of the user and detecting an input reads on the interface being active and inactive, i.e. no input to the user interface is inactive since the user is not actively selecting any key of the interface, while an input is clearly active), and the apparatus is configured to set the inactive state as the state of the interface component when the user interface component is not being actively used, (figure 2 step S9, the user interface component, keys 62 in figure 1, are checked for an input from the user. See par. 55 and 75 which explains how the controller judges whether the user has depressed one of the input keys 62 or not, and thus if a key is input the component is in an actively used state, and if no input key is pressed then the input keys are clearly set in an inactive state. The idea of setting the user interface component to an inactive state is inherent in view of the user interface component being input keys 62. For example, when a key is depressed the controller knows the key is actively used and will perform some action based on that key being pressed, and thus the keys are in an active state. However, when no key is pressed, or after a single key is pressed and then no more keys are again pressed, the user interface component is set as inactive since the controller is not registering any presses of the keys 62, and thus the keys are not actively being used.) and

if the current state of the user interface component is inactive (figure 2 step S9, further par. 75, i.e. the user did not input any instruction using the input keys 62), the processor is configured to prevent, on the basis of the checking, application of a handover (figure 2, step S9, handover is prevented if the user did not use the input keys 62, thus if the user interface component is inactive, the handover is prevented, further see par. 75), configured to select one of at least two available channels to be used for a connection from the apparatus. (par. 30, i.e. the controller controls handover between two communication systems, and thus selects one of at least two available channels)

Kubosawa further teaches the idea of checking the state of the user interface component automatically in response to detecting a need to initiate a handover in par. 32, where he explains that the controller judges whether handover is needed or not, based on communication quality measured at the receivers, *and information designated by the user*. Further see figure 2, which shows in step S4 the communication quality is first measured and then in step S5-S7 the process detects whether there is a need to initiate handover or not based on the communication quality. Finally, automatically in response to the quality deteriorating, and thus a need for handover, the process moves to step S9 to then check the user interface component (i.e. input keys 62). Therefore, it is clear that the user interface component is checked automatically in response to detecting a need to initiate handover in the case when handover is not possible. It is noted that if handover is possible at step S7 the user interface is not checked, however, the user interface is automatically checked in response to the need for handover when handover is not possible, and thus in this specific instance of the process Kubosawa

can in fact read on this limitation. The fact that Kubosawa teaches another instance that does not have the user interface automatically checked, does not take away from the fact that the one instance when handover is not possible, the user interface is checked in response to a need for handover, thus reading on the claimed limitations. (The examiner notes that Kubosawa teaches initiating the actual handover and not simply a handover algorithm, however, as provided below, Halonen teaches the idea of preventing and initiating a handover algorithm for the reasons set forth below.)

Although Kubosawa teaches that if there is no input from the user (figure 2, item S9, no input, i.e. the keypad has no input, thus clearly reading on a user interface component being inactive) the device will not handover, he does not specifically disclose that the handover algorithm will be prevented.

Halonen teaches a handover method and system (title and abstract). He clearly teaches the idea of preventing a handover algorithm (rather than just preventing an actual handover as in Kubosawa) on page 9 at lines 19-21. He clearly states that the hand over algorithm can be stopped, thus "preventing" the handover algorithm. Further see page 3 lines 17-19 which states that an advantage of the method is that it is not necessary to keep checking for a possible hand over in situations, which can clearly be interpreted as the hand over algorithm being "prevented" since the system will not keep checking for possible hand over. This idea, of preventing the hand over algorithm, when combined with the ideas as in Kubosawa (i.e. if a user interface component is inactive the device will not handover), would allow for one of ordinary skill in the art to clearly see that preventing the entire handover algorithm, rather than just preventing the hand

over itself, based on the user interface being inactive would have been obvious at the time of invention. As explained below, it would allow for a system that will not have to unnecessarily keep checking for possible hand over.

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of Halonen with the teachings as in Kubosawa. The motivation for doing so would have been to create a system and method that is not necessary to keep checking for possible handovers in certain situations. (Halonen page 3 lines 17-20).

However, they do not specifically disclose initiating the handover algorithm in response to detecting the state of the user interface component to change from the inactive to the active state.

Lee teaches a device and system to detect movement of users and prepare a handoff process (title and abstract). He teaches in figure 2 and par. 16 the idea of initiating the handover algorithm in response to detecting the state of the user interface component to change from the inactive to the active state, when he explains figure 2 step 201. The user will power on the wireless communication unit, thus clearly having a user interface component transition from an inactive state to an active state. Then, as seen in figure 2 and explained in par. 16, the handover algorithm (figure 2, the steps following the power on step is the handover algorithm) is initiated in response to the device being turned on, and thus reading on in response to a user interface component changing from an inactive state to an active state.

Therefore it would have been obvious for one of ordinary skill in the art at the

time of invention to utilize the teachings of Lee with the teachings as in the combination of Kubosawa and Halonen. The motivation for doing so would have been to allow for saving power consumption. (Lee par. 6).

Regarding claims 3 and 13. Kubosawa further teaches the idea of deciding to perform a handover if the mobile station is near another coverage area in par. 38.

Regarding claims 8 and 19. Kubosawa further teaches wherein the handover algorithm determines a change between channels of different network technologies. (par. 37, the handover is performed between different communication systems, and a change in channel would thus be inherent.)

Regarding claims 22, 24, and 26. Kubosawa further teaches that checking the state further comprises checking the state of a mechanical user interface component in figure 1 item 62, which are input keys, (i.e. mechanical components).

Regarding claims 23, 25, and 27. Kubosawa further teaches the idea of performing measurements on the current state if the user interface is active. (see figure 2 item S4)

Regarding claim 28. Kubosawa further teaches wherein the apparatus is a mobile terminal with a user interface in figure 1.

Regarding claim 29. Kubosawa further teaches wherein the need to activate handover algorithm is based on channel measurements in par. 32. (i.e. the controller judges whether handover is needed or not, based on communication quality measured at the receivers. The examiner would like to note that Kubosawa teaches activating the actual handover rather than the algorithm, however, the combination with Halonen

allows for the handover algorithm to be activated based on the measurements for the reasons set forth above.)

Regarding claim 30. Kubosawa further teaches activating the handover algorithm based on channel measurements in par. 32. (i.e. the controller judges whether handover is needed or not, based on communication quality measured at the receivers, and only a case that the handover is needed the controller executes the handover. The examiner would like to note that Kubosawa teaches activating the actual handover rather than the algorithm, however, the combination with Halonen allows for the handover algorithm to be activated based on the measurements for the reasons set forth above.)

5. Claims 5, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubosawa in view of Halonen and Lee, and further in view of Claxton (US 6178388).

Regarding claims 5, 15, and 16. Kubosawa, Halonen, and Lee teach the limitations of the previous claims.

However, they do not distinctly disclose wherein the terminal comprises a body portion and a lid which is connected to the body portion and can be moved with respect to the body portion, and wherein the state of the lid in relation to the body portion is checked.

Claxton teaches the idea that flip phones (phones with 1st and 2nd portions) are well known in the art and that when the flip phone is closed (with key pads covered)

they are inactive, and when opened they are active. (column 1 lines 48-59) (i.e. which clearly reads on "wherein the state of the lid in relation to the body portion is checked", and checking the position of the 1st portion in relation to the 2nd).

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of Claxton into the teachings of Kubosawa, Halonen, and Lee. The motivation for doing so would have been to allow for the mobile device as in Kubosawa to be of the flip phone type, since it is a well-known and highly popular style mobile phone.

6. Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubosawa, in view of Halonen and Lee further in view of Cowsky, III et al. (US 2004/0204123).

Regarding claims 6 and 17. Kubosawa, Halonen, and Lee teach the limitations of the previous claims.

However, they do not distinctly disclose wherein the terminal comprises a keypad and a keypad locking functionality for locking the keypad, whereby the state of the keypad locking is checked.

Cowsky teaches a flip phone with keypad in figure 1, he further teaches the idea of a locking functionality for locking the keypad in par. 2 to allow for making the keys inactive.

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the locking function as in Cowsky with the teachings of

Kubosawa, Halonen, and Lee. The motivation for doing so would have been to allow for locking the keypads and avoiding inadvertent keystrokes (Cowsky par. 1-2)

7. Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubosawa, Halonen, and Lee further in view of Wren, III (US 2004/0248594).

Regarding claims 7 and 18. Kubosawa, Halonen, and Lee teach the limitations of the previous claims.

However, they do not distinctly disclose wherein the terminal comprises a screen saver functionality, the state of which is detected, whereby the state of the user interface component is inactive when the screen saver functionality is applied and the state of the user interface component is active when the screen saver functionality is not applied.

Wren teaches the idea of having screen savers displayed on mobile phones in par. 55. He further teaches to display the screen saver when the device state is inactive, and not displaying it when the device is active (i.e. detecting the state of the device).

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of Wren with the teachings of Kubosawa, Halonen, and Lee. The motivation for doing so would have been to allow for the ever popular idea of personalizing the user device (Wren par. 55)

8. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kubosawa, Halonen and Lee further in view of Harris et al. (US 6871074).

Regarding claim 20. Kubosawa, Halonen, and Lee teach the limitations of the previous claims. Kubosawa further teaches the idea of the terminal comprising of a timer in figure 2, see item S3.

However they do not distinctly disclose wherein the terminal comprises a timer configured to determine the state of the user interface as inactive after a predetermined time period has elapsed after the latest user activity.

Harris teaches it is well known for a mobile terminal using a timer to transition the mobile to an off/inactive state upon the given time being elapsed (clearly shown in the abstract).

Therefore it would have been obvious for one of ordinary skill in the art at the time of invention to utilize the teachings of Harris with the teachings Kubosawa, Halonen, and Lee. The motivation for doing so would have been to increase system performance (abstract).

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL T. THIER whose telephone number is (571)272-2832. The examiner can normally be reached on Monday thru Friday 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MICHAEL T THIER/
Examiner, Art Unit 2617
2/17/10